

ABSTRACT OF THE DISCLOSURE

A system designed, including commercially distributed modules protected as intellectual property (IP), is verified in a manner that the IP provider and the user communicate with each other over a communication line to complete the system design verification. A system verification equipment to be operated by the IP provider receives from the system designer across the communication line an input vector at time n to a module provided to the system designer who designed the system integrated using one or more provided IP modules. After simulating the module operation with the input vector, the verification equipment returns an output vector obtained at time $n + 1$ to the system designer over the communication line. The verification equipment examines the input vectors to the provided IP modules and records statistics information thereof, based on which the provider will quantitatively understand how the provided modules have been used. Such information is used by the provider to determine the specifications of modules to be provided next time and to market modules meeting user needs. The verification equipment determines the service charge for each IP user by the quantity of load worked on its verification system to fulfill the service, according to the quantity of input vector data transmitted to the equipment by the user. Furthermore, the verification equipment encrypts vector data before transmitting it across the communication line and decrypts vector data after receiving it over the line such that the data is prevented from intercepted by a third party.